positive technologies

PT Next Generation Firewall

A world-class firewall

PT NGFW combines peak performance with deep expertise in countering modern threats. The lineup is designed to protect corporate networks of any scale—from small branch offices to large data centers. Furthermore, our service level sets a new benchmark for the entire market.

Proprietary security technologies at maximum speeds

High-performance x86 architecture: built on general-purpose processors, it enables traffic processing at speeds of 400 Gbps and supports industrial protocols.

Modernized TCP/IP stack: packets are processed in user space, accelerating traffic analysis and allowing for functional scalability without performance loss. **The standard Linux stack is not used.**

Proprietary IPS and antivirus software backed by expertise from a security market leader ensure a world-class catch rate under load.

400 Gbps
in L4 FW mode with application control

100 Gbps
in IPS mode with application control

30 Gbps
with TLS 1.3 inspection

10,000+ signatures
from the PT Expert Security Center

User-friendly interface

Intuitive management interface
Accelerates deployment, simplifies setup, and reduces the risk of configuration errors

Well-documented API
Boosts automation and allows for the implementation of any operational logic

Integration with Positive Technologies products
(inlcuding MaxPatrol SIEM and PT Sandbox)
Facilitates faster incident response and damage minimization

Centralized management system: up to 100,000 devices

Reliable choice

Proven performance
PT NGFW exceeded its stated performance metrics in independent tests conducted by cybersecurity companies.

PT NGFW lineup

Technical specifications and supported protocols

	PT NGFW 1005	PT NGFW 1010	PT NGFW 1020	PT NGFW 1050	PT NGFW 2010	PT NGFW 2020	PT NGFW 2050	PT NGFW 3010	PT NGFW 3040	PT NGFW 3050
Throughput, EMIX	**L4 FW + AppControl**									
	1 Gbps	4 Gbps	8 Gbps	10 Gbps	80 Gbps	100 Gbps	140 Gbps	190 Gbps	300 Gbps	400 Gbps
	Mode: IPS + AppControl									
	120 Mbps	600 Mbps	1,4 Mbps	4,5 Mbps	12 Mbps	23 Mbps	32 Mbps	40 Mbps	60 Mbps	100 Mbps
	FW + IPS + AppControl + NAT + AV + URL categorization									
	100 Mbps	480 Mbps	1 Gbps	3.3 Gbps	10 Gbps	18 Gbps	25 Gbps	32 Gbps	47 Gbps	86 Gbps
	500 kpps	1 Mpps	1.1 Mpps	1.5 Mpps	7 Mpps	8,5 Mpps	12 Mpps	15 Mpps	20 Mpps	40 Mpps
Supported number of rules	10 000 rules per device				100 000 rules per device					
Maximum concurrent sessions, HTTP, 1KB	100,000	500,000	1.3 million	3.25 million	6.4 million	12.5 million		14 million		40 million
New sessions per second, HTTP, 1 byte	12,000	26,000	80,000	167,000	900,000	1 million	1.5 million	1.7 million	2.2 million	3 million
TLS/SSL inspection with all FW modules enabled	85 Mbps	100 Mbps	800 Mbps	1 Gbps	8 Gbps	15 Gbps		20 Gbps	25 Gbps	29 Gbps
IPsec VPN, HTTP, response size 64 KB, AES-GCM-256 encryption	100 Mbps	500 Mbps	1.01 Gbps	2.97 Gbps	10.5 Gbps	17.9 Gbps	24.3 Gbps	35.2 Gbps	47.7 Gbps	59.6 Gbps
Device size (D×W×H), mm	150×200×44	185×200×44	185×200×44	185×300×44	550×490×89	550×490×89	550×490×89	550×490×89	550×490×89	550×490×89
Package size (D×W×H), mm	230×255×120	230×255×120	230×255×120	230×350×120	800×255×120	800×610×260	800×610×260	800×610×260	800×610×260	800×610×260
Device weight, kg	0.8	1	1.4	1.9	14	14	15	15	15	15
Device weight in packaging, kg	1.5	1.9	2.8	3.4	23	23	24	24	24	24
Form factor	Tabletop		**Can also be mounted to a telecom rack**							
			1RU, tabletop	1RU, tabletop	2RU	2RU	2RU	2RU	2RU	2RU
Built-in network interfaces	1 × 10 Gbps, SFP+ 4 × 1 Gbps, RJ-45	2 × 10 Gbps, SFP+ 2 × 1 Gbps, SFP/ RJ-45, 4 × 1 Gbps (combo), RJ-45	4 × 10 Gbps, SFP+ 4 × 1 Gbps RJ-45	2 × 10 Gbps, SFP+ 2 × 1 Gbps, SFP/ RJ-45, 4 × 1 Gbps (combo), RJ-45	—					
Modules of network interfaces	—				4 × 1 Gbps, RJ-45 2 × 10/25 Gbps, SFP28 4 × 10/25 Gbps, SFP28 2 × 100 Gbps, QSFP28					
Number of installed network interface modules	—				5					
USB	2	2	4	2	2					
SSD	1 × 240 GB	1 × 240 GB	1 × 240 GB	1 × 240 GB	2 × 240 GB	2 × 240 GB	2 × 480 GB	2 × 960 GB	2 × 960 GB	2 × 960 GB
Power supply configuration	1 × 40 W	1 × 40 W	2 × 60 W	2 × 60 W	2 × ≤1600 W					
	AC input voltage and frequency: 110–240 V, 50–60 Hz **Operating temperature and humidity:** 10–35°C, 10–85% non-condensing									
Typical power consumption, W	18	18	36	36	345	385	475	560	600	1000
Airflow direction:	—		Left-to-right		Front-to-back					

PT NGFW functions

Interfaces
- 1 Gbps, RJ-45
- 1 Gbps, SFP/RJ-45 (combo)
- 10 Gbps, SFP+
- 10/25 Gbps, SFP28
- 100 Gbps, QSFP28
- Expansion slots: for additional interfaces (models 20XX and 30XX)
- Dedicated ports: session control and synchronization
- USB 2.0, USB 3.0 for trusted boot module tokens and maintenance

Operating modes
- L2 (transparent, vWire)
- vWire interface state synchronization
- L3 (routed)
- Mixed mode (L2 and L3) within a single context

Segmentation
- Virtual contexts (up to 256 per chassis)
- Virtual routers (VRF-lite)

High availability
- SSD redundancy
- Separation of control plane and data plane
- Active-Standby with session synchronization
- Sub-second active–standby cluster convergence
- Interface state tracking
- Virtual IP, virtual MAC
- Cluster preemption
- Active–Active (external load balancer)

Second-level protocols
- DHCP relay
- 802.3ad (LACP) aggregation with pre-negotiation and static modes

VLAN
- Traffic tagging in accordance with IEEE 802.1Q
- VLAN remapping
- 4094 supported VLANs

Routing
- Static routing
- Policy-based routing
- Floating static route
- OSPFBGP
- Route maps
- Redistribution
- Full view support
- BFD, multi-hop BFD
- Graceful restart

Network address translation (NAT)
- Source NAT
- Destination NAT
- Static NAT
- Combinations of supported NAT types (such as twice NAT)
- Proxy ARP for NAT

Security
- Anti-spoofing
- Stateful inspection
- Zone-based firewall, up to 65,000 zones
- Data filtering based on:
  - IP addresses
  - Security zones
  - User ID
  - Transport protocol and port
  - Application or application category
  - User actions in the application
- Detection of over 4,500 applications
- URL filtering with AI-based resource categorization
- Threat intelligence
- GeoIP
- ICAP (REQMOD, RESPMOD)
- IPS/IDS: over 10,000 proprietary PT ESC signatures
- Pre-classification stage IPS
- Detection of industrial protocols
- Antivirus software
- Mirroring of decrypted traffic
- Decoders: HTTP, DNS, TLS
- HTTPS traffic decryption (TLS 1.2, 1.3)
- Session timeouts: customizable per device, context, or rule

Logging
- Built-in log collector in the management system
- Dedicated log collector
- Syslog for exporting security and audit events

LDAP catalog support
- Microsoft Active Directory
- Captive portal
- Local user list for UserID integration with third-party systems

VPN
- Site-to-site VPN IKEv2
- Tunnel VTI
- Multiple traffic selectors for policy-based VPN compatibility

Remote-access VPN
- Windows 10, 11 and server equivalents Astra Linux (1.8.2 Desktop SE), Ubuntu Linux (24.04.3)
- Connection via import of config files generated in the PT NGFW management system
- IKEv2: EAP-MSCHAPv2. AES-256 encryption
- IPSec. AES-256 encryption

Control and monitoring
- Centralized management system with active–standby redundancy (supports up to 100,000 devices)
- Interface languages: Russian, English
- LDAP for authorization in the management system
- Command-line interface (CLI) for diagnostics
- SSH
- HTTPS
- SNMPv2c, SNMPv3
- SNMP trap*
- NTP
- REST API, JSON API
- File delivery configured
- Management console
- BMC: available for models 20XX and 30XXS

Integration with Positive Technologies products
- MaxPatrol SIEM
- PT NAD
- PT Sandbox

Diagnostics
- Optical transceiver diagnostics (DDM)
- Ping, traceroute
- LED status indication

Virtualization system support
- VMware ESXi
- KVM

Power supply
- ~110–230 V
- Power redundancy is available for all models (except PT NGFW 1005)

Form factor
- Desktop
- 19» rack mount

* Expected in version 1.11.
All listed features are available starting from version 1.10.